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PATENT  
1534.00001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application Of: ) A TELEVISION SYSTEM WITH  
YANG ET AL. ) DIGITAL SOUND  
Serial No.: 09/783,371 )  
Filed: February 14, 2001 )

**PRELIMINARY AMENDMENT**

Asst. Commissioner for Patents  
Washington, D.C. 20231

Sir:

Applicants amend as follows:

**IN THE SPECIFICATION:**

Page 1, delete the seventh paragraph, which continues on page 2, and substitute therefor:

--The present invention is characterized that the color television system integrates visual frequency and digital sound technologies. In addition to be an accompanying sound system of the television, the color television system may be served as independent sound equipment. Meanwhile, the scanning section of the color television may be turned off to stop operation of deflection and high-voltage units, thereby saving energy, maintaining and extending the life of the CRT and the control circuit of its scanning section. The digital sound color television system

37 CFR 1.8  
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on June 8, 2001.

Signature: \_\_\_\_\_

*Anne E. Regnier*  
Anne E. Regnier

reproduces various sound field effects perfectly once it is coupled to disk players such as CD, VCD, SVCD, DVD, and digital recorder. It is a modern product integrating color television and digital sound equipment.--

Page 2, delete the first paragraph and substitute therefor:

--The advantage of the digital sound color television system are to digitalize accompanying system of a color television to provide a Hi-fi sound effect; to serve as family audio equipment independently even the CRT is shut down; saves space and render simple operation in comparison with prior art combination sound equipment; to greatly enhance source-sharing rate; and to bring into full use of room space.--

### REMARKS

The specification has been amended to improve its form.

Submitted herewith is a photocopy of Fig. 5 of the drawings showing proposed changes.

In block 4 the Chinese language legend is deleted; one of the dual woofer speakers is deleted.

Legends are added to:

block 4 - sound processor unit

unnumbered block enclosing amplifiers 5 and 6 - stereo power amplifier

amplifier 7 - woofer amplifier

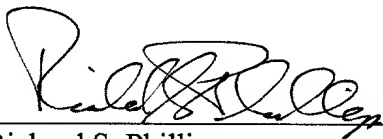
speaker 2L - L-channel speaker

speaker 2R - R-channel speaker

speaker 8 - woofer speaker

Approval of the drawing amendment is requested.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Richard S. Phillips', written over a horizontal line.

Richard S. Phillips  
Reg. No. 17,314

Dated: June 8, 2001

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Marked up Version

## A Television System with Digital Sound

### TECHNICAL FIELD

The present invention relates to an audio/visual apparatus, in particular, a digital sound television system that uses a color television to produce digital sound.

### BACKGROUND

For many years, television is a product that is mainly used to process visual frequency to present pictures; its accompanying sound system is a subordinate function and cannot be used independently. Along with rapid development of audio/visual technology, more and more audio/visual products enter into ordinary families. Most users have both color television and disk player. However, many users hope to appreciate Hi-fi music with color television set at their leisure, such as CD music, even no sound equipment is equipped with the television, but prior art color television cannot do it.

### DESCRIPTION

The present invention is to provide a digital sound television system that may generate digital sound with a color television.

The present invention includes a color television and at least a pair of three-stage frequency-splitting column sound boxes with three speakers. The present invention is characterized that the digital sound television system includes a front amplifier arranged in the control circuit inside the color television and the accompanying sound of the stereo is outputted to at least one pair of the column sound boxes by a power amplifier already in the color television.

A plurality of speakers of the pair of column sound boxes may be built in the color television to form integral speaker device.

The integral speakers may be those for a surrounding stereo sound box.

The present invention is characterized that the color television system integrates visual frequency and digital sound technologies. In addition to be an accompanying sound system of the television, the color television system may be served as independent sound equipment. Meanwhile, the scanning section of the color television may be turned off to stop operation of inflexion and high-voltage units, thereby saving energy, maintaining and extending the life of the kincscope and the control circuit of its scanning section. The digital sound color television system reproduces various sound field effects perfectly once it is coupled to disk players such as CD, VCD, SYCD, DVD, and digital recorder. It is a modern product integrating

deflection

CRT

color television and digital sound equipment.

The advantage of the digital sound color television system are to digitalize accompanying system of a color television to provide a Hi-fi sound effect; to serve as family sound system independently even the monitor is shut down; saves space and render simple operation in comparison with prior art combination sound equipment; to greatly enhance source-sharing rate; and to bring into full use of room space.

## BRIEF ILLUSTRATION OF DRAWINGS

Detailed explanation of the structure, characteristics, and functions of the present invention is given in combination with attached drawings:

FIGURE 1 is a front view of the first embodiment of the present invention;

FIGURE 2 is a top view of the first embodiment of the present invention;

FIGURE 3 is a front view of the second embodiment of the present invention;

FIGURE 4 is a sectional view along line A-A of the second embodiment of the present invention;

FIGURE 5 is a block diagram of the present invention;

FIGURE 6 is a sound circuit of the present invention; and

FIGURE 7 is a flow chart of the control process in accordance with the present invention.

## PREFERRED EMBODIMENTS

Figs. 1, 2, and 5 show a front view and a top view of the external sound box of first embodiment in accordance with the present invention. The present invention includes color television 1 and at least one pair of three-stage frequency-splitting column sound boxes 2 that are arranged on both sides of the color television with each having three speakers. A front amplifier 4 is arranged in the control circuit in the color television 1 for digital signal processing, such as pitch control over sound signal. The sound signal from the color television or other sources is amplified by amplifier 5 for left channel, power amplifier 6 for right channel (maximum amplification value of each amplifier is 12W), and a woofer amplifier 7 (maximum amplification value of the amplifier is 16W). The amplified sound signal then is coupled to the pair of three-stage frequency-splitting column stereo boxes 2 arranged outside color television 1. The sound boxes may be built in inside or outside.

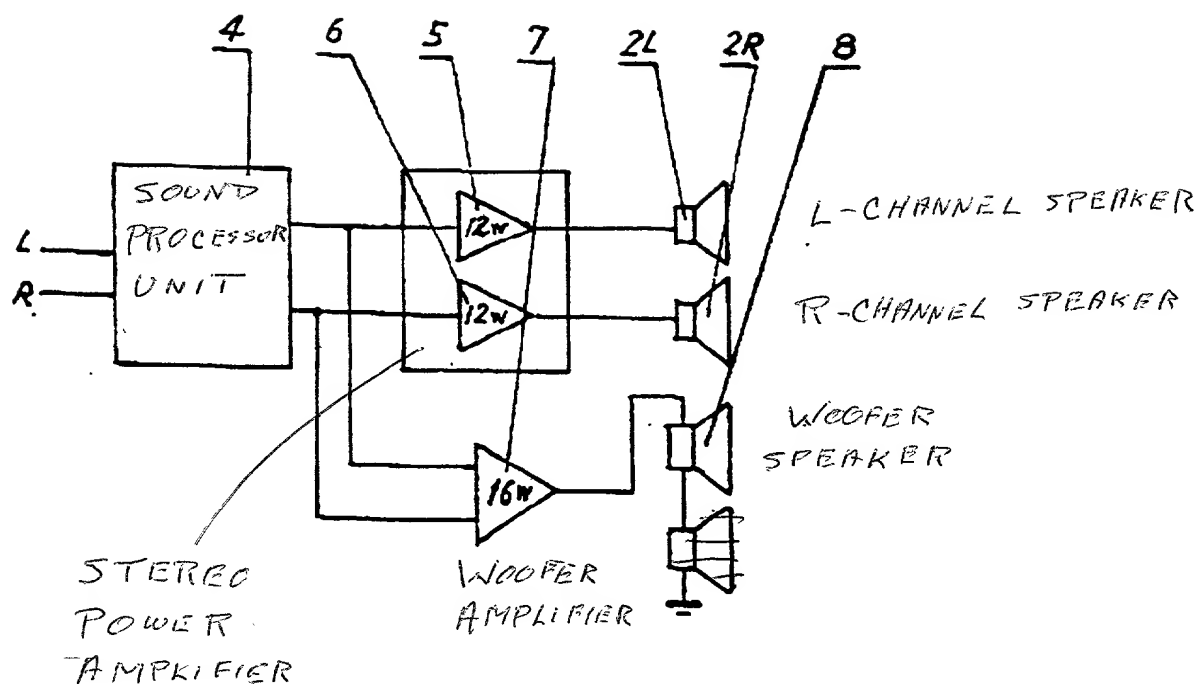


FIG. 5